

AMENDMENTS TO THE CLAIMS (AS ON AMENDED SHEETS ANNEXED TO IPER)

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) Process for reducing the aldehyde concentration in a mixture comprising cyclohexanone and one or more aldehydes, said process comprising distilling said mixture in a distillation column in the presence of an alkaline compound, wherein in the bottom of the distillation column less than 100 weight ppm of water is present.
2. (original) Process according to claim 1, wherein said mixture is a mixture comprising cyclohexanone, cyclohexanol, low boiling compounds and high boiling compounds and wherein said distilling involves separation of low boiling compounds to obtain a top product comprising low boiling compounds and a bottom product comprising cyclohexanone, cyclohexanol and high boiling compounds.
3. (currently amended) Process according to any one of claim 1 ~~to 2~~, wherein the aid aldehydes are hexanal and/or pentanal.
4. (currently amended) Process according to claim 2 ~~or 3~~, wherein the distillation is effected at a top temperature of between 45 and 130 °C and a bottom temperature of between 105 and 190 °C.
5. (currently amended) Process according to ~~any one of claim 1 to 4~~ claim 1, wherein the process comprises feeding a solution comprising water and the alkaline compound to the distillation column at a level above the bottom of the distillation column.
6. (currently amended) Process according to ~~any one of claim 1 to 5~~ claim 1, wherein the process comprises feeding the mixture to said distillation column and feeding a solution comprising water and the alkaline compound to the distillation column at a level above the bottom of the distillation column.

7. (currently amended) Process according to ~~any one of claim 1 to 5~~ claim 1, wherein the process comprises feeding the mixture to the distillation column at a level above the bottom of the distillation column and introducing a solution comprising water and the alkaline compound into the mixture prior to said feeding.

6. (currently amended) Process according to ~~any one of claim 1 to 7~~ claim 1, wherein the alkaline compound is an alkali metal compound.

9. (original) Process according to claim 8, wherein distilling the mixture is effected with such an amount of alkali metal compound that the concentration of alkali metal in the bottom of the distillation column is higher than 2 weight ppm and lower than 50 weight ppm.

10. (currently amended) Process according to ~~any one of claim 1 to 9~~ claim 1, wherein said alkaline compound is an alkali metal hydroxide, alkali metal carbonate or alkali metal alkoxide.

11. (currently amended) Process according to ~~any one of claim 1 to 10~~ claim 1, wherein said alkaline compound is sodium hydroxide or potassium hydroxide:

12. (currently amended) Process according to ~~any one of claim 1 to 11~~ claim 1, wherein the process further comprises feeding said bottom product to a distillation column in which cyclohexanone is distilled off as a top product.

13. (currently amended) Process according to ~~any one of claim 1 to 12~~ claim 1, wherein preparing of the mixture involves oxidizing cyclohexane in the liquid phase with an oxygen containing gas in the absence of an oxidation catalyst resulting in an oxidation mixture comprising cyclohexane cyclohexyl hydroperoxide, cyclohexanone and cyclohexanol; treating the oxidation mixture with a cyclohexyl hydroperoxide decomposing metal salt in the presence of an alkali metal hydroxide such as to effect decomposition of the cyclohexyl hydroperoxide into cyclohexanone and cyclohexanol to obtain the mixture subjected to said distilling in the presence of an alkaline compound.

14. (original) Process according to claim 13, wherein said preparing of the mixture further involves separating cyclohexane prior to said distilling.

15. (currently amended) Process according to ~~any one of claims 1-14~~ claim 1, wherein the process comprising oxidizing cyclohexane in the liquid phase with an oxygen containing gas resulting in an oxidation mixture comprising cyclohexane, cyclohexyl hydroperoxide, cyclohexanone and cyclohexanol;

treating the oxidation mixture with a cyclohexyl hydroperoxide decomposing metal salt in the presence of an alkali metal hydroxide such as to effect decomposition of the cyclohexyl hydroperoxide into cyclohexanone and cyclohexanol, resulting in a mixture comprising cyclohexanone, cyclohexanol and cyclohexane; separating, by distillation, cyclohexane from the mixture comprising ~~comprising~~ cyclohexanone, cyclohexanol and cyclohexane;

separating, by distillation, low boiling compounds from the resulting mixture to obtain a top product comprising low boiling compounds and a bottom product comprising cyclohexanone, cyclohexanol and high boiling compounds;

wherein the distillation to separate cyclohexanone or the distillation to separate low boiling compounds is carried out according to ~~any one of claims 1 to 15~~ claim 1.

16. (original) Process according to claim 15, wherein the process further comprises feeding said bottom product to a distillation column in which cyclohexanone is distilled off as a top product.